

**KIT OI, SHAPOSHNIKOV AV. GENERAL CARCINOGENESIS. EXOGENOUS TUMOROGENIC EFFECTS.
ROSTOV-ON-DON: LLC "DON PUBLISHING HOUSE"; 2022, 128 P.**

Abrosimov AYu

Dr. Sci. (Med.), professor, scientific director of department of fundamental pathomorphology,
National Medical Research Center for Endocrinology Moscow, Russia



The second part of a three-component work on general carcinogenesis has been published. The first part (2021) deploys modern theories, models of general carcinogenesis: mutation theory, models of genomic instability, Darwinian and non-genotoxic models, and also explains the roles of inflammation, immunological deviations and tumor microenvironment in carcinogenesis.

Particular attention has been paid to the biological characteristics of tumor cells, genetic characteristics and metabolic changes that initiate and promote tumor growth.

A general concept of carcinogenesis has been formulated, which boils down to the presence of "ring" spheres: tumorigenic environment → the organism as a whole system and its subsystems → target organ → protective tumorigenic tissue microenvironment → target cell → genetic alterations, eventually leading to malignant growth.

The second part of the manual (2022) is devoted to the mechanisms of carcinogenesis. In this monograph, the main attention is paid to the "outer ring of carcinogenesis" – a tumorigenic environment, which includes

a wide range of various negative factors: from cosmic and terrestrial to food, medical and iatrogenic ones.

The book provides modern facts about the prevalence of certain agents, their influence on the body and the creation of carcinogenic background at the organ-cellular and gene-molecular levels. Attention is focused on the dependence of the cancer effects of exogenous influences on their intensity, duration, organotropism and genotoxicity. In conclusion, a general assessment of these effects as inducers of malignant growth is given.

The manual contains 20 tables reflecting all the key positions of the factual material. The monograph is illustrated with 29 color figures brilliantly prepared by the authors. The print quality is amazing.

Each chapter is accompanied by references, predominantly for the last 5–7 years.

In our opinion, Chapter 3.7 "Medical influences as inducers of carcinogenesis" is of particular interest.

There are 3 groups of carcinogenic medical effects: A – causing the development of primary, previously non-existing malignant neoplasms (MNs) at the preventive, diagnostic, therapeutic and rehabilitation levels among non-cancer patients; B – inducing growth and metastatic spread of existing MNs; C – contributing to the development of other primary tumors in patients with MNs. Drug-induced carcinogenesis develops in several directions.

In recent years, the approach to assessing the key characteristics of human carcinogens has changed. Most of them (85 %) have turned out to be genotoxic, 47 % change cell proliferation, and 40 % induce oxidative stress. Other mechanisms of carcinogenesis also retain their negative roles.

The monograph can be used in the course of lectures and practical classes on oncology for students, PhD students and residents of the faculty of physician promotion. It is of considerable interest to all oncologists.